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DAI, Yanzhong [CN/CN]; Philips Electronics China, 21/F Kerry Office Building 218 Tian Mu, Xi Road, Shanghai 200070 (CN).

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(74) Common Representative: **KONINKLIJKE PHILIPS ELECTRONICS N.V.**; c/o HAQUE, Azir, Philips Electronics China, 21/F Kerry, Office Building, 218 Tian Mu Xi Lu Road, Shanghai 200070 (CN).

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(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

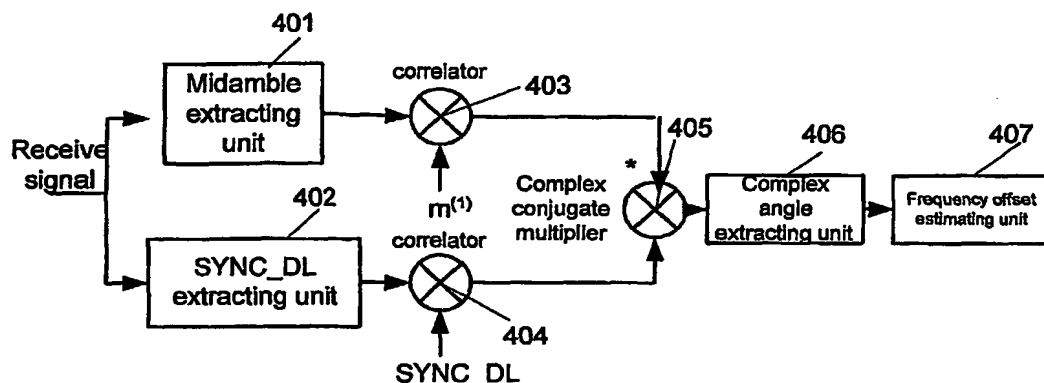
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(72) Inventors; and

(75) Inventors/Applicants (for US only): **LI, Yan** [CN/CN]; Philips Electronics China, 21/F Kerry Office Building 218 Tian Mu, Xi Road, Shanghai 200070 (CN). **XU, Luzhou** [CN/CN]; Philips Electronics China, 21/F Kerry Office Building 218 Tian Mu, Xi Road, Shanghai 200070 (CN).

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(54) Title: METHOD AND APPARATUS OF FREQUENCY ESTIMATION FOR THE DOWNLINK OF TD-SCDMA SYSTEMS



(57) Abstract: A method of frequency estimation for the downlink of wireless communication systems, comprising steps of: determining, according to the received radio signals, the phase shift of the midamble and that of the downlink synchronization code of the radio signals respectively; calculating the phase shift difference between the midamble and the downlink synchronization code of the radio signals, according to the determined phase shift of the midamble and that of the downlink synchronization code; estimating the frequency offset of the radio signals, according to the phase shift difference between the midamble and the downlink synchronization code of the radio signals and the relationship between the expected midamble and the downlink synchronization code, e.g. the time interval between the midamble and the downlink synchronization code in communication protocols.

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